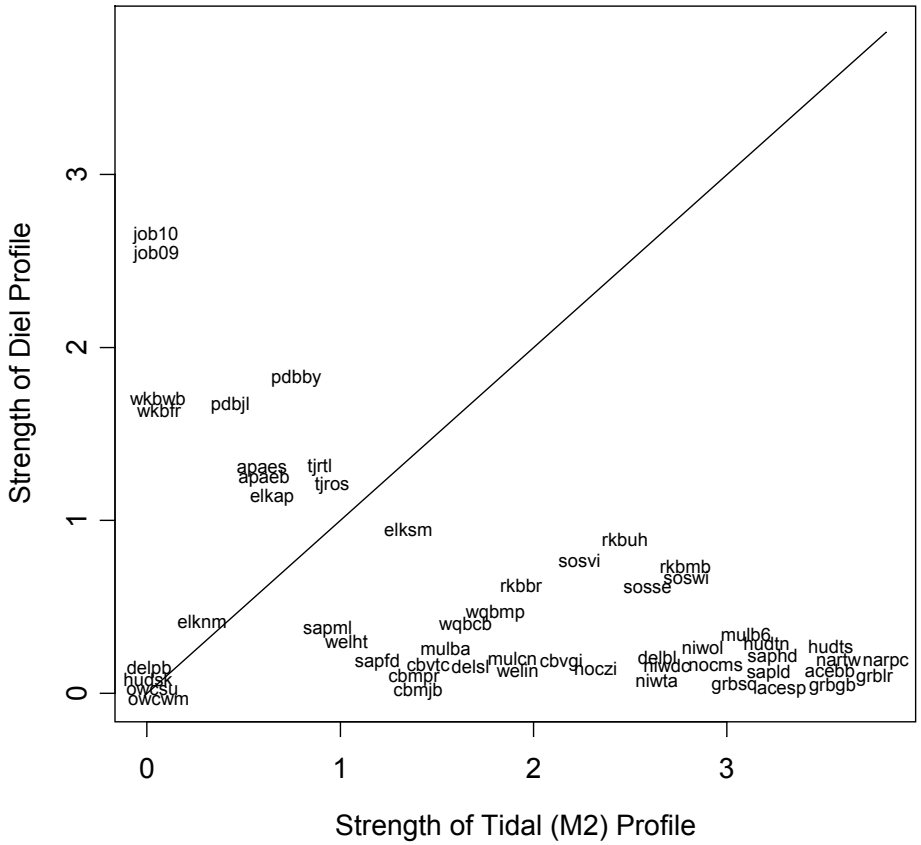

Figure 42. Diel vs. tidal force influence on water depth, NERR SWMP 1995-2000.

Sites from the same reserve tend to cluster with respect to the importance of diel vs. tidal forces in influencing water depth (Figure 42). The Jobos Bay, Padilla Bay, Weeks Bay, Apalachicola Bay and Tijuana River sites lie above the "equal importance" line, suggesting that water depth is driven more by solar influences than tidal ones at these reserves. The Elkhorn Slough sites straddle the line. Water depth at all other sites seems to be more strongly influenced by tidal forces than diel forces.

Water depth was not strongly influenced by either diel or tidal cycles at four freshwater sites, specifically: both Old Woman Creek NERR sites, Hudson River-Saw Kill, and Delaware Bay-Penrose Branch. These sites also had low average R^2 values for depth, as their depth did not vary with any substantial cyclic regularity.

The most extreme sites along both axes in Figure 42 approach or exceed "strength" values of 3. Depth is unusual among the variables in this respect, probably because it is so cleanly cyclic at so many sites. For most other variables, the largest "strength" values are closer to 2.0.